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(74) Agents: **KERNER, Ann-Louise, Ph.D.** et al.; Hale and
Dorr LLP, 60 State Street, Boston, MA 02109 (US).

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(71) Applicant (*for all designated States except US*): **NOR-
WOOD IMMUNOLOGY, LTD.** [AU/AU]; 63 Wells
Road, Chelsea Heights, 3196 Victoria (AU).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **GOLDBERG,**
Gabrielle, Lianne [AU/AU]; 10 Willansby Ave, Brighton,
3186 Victoria (AU). **SUTHERLAND, Jayne, Suzanne**
[AU/AU]; 172 Dow Street, Port Melbourne, 3207 Victoria
(AU). **CHIDGEY, Ann, Patricia** [AU/AU]; 274 Beach
Road, Black Rock, 3193 Victoria (AU). **BOYD, Richard**
[AU/AU]; 60 Linacre Road, Hampton, 3188 Victoria (AU).

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(54) Title: TOLERANCE TO GRAFT PRIOR TO THYMIC REGENERATION

(57) Abstract: The present disclosure provides methods for inducing tolerance in a recipient to a mismatched graft of an organ, tissue, and/or cells, by disrupting sex steroid signaling in the patient, wherein the bone marrow and other immune cell functionality is improved without, prior to, or concurrently with, thymic regeneration. In some embodiments, sex steroid signaling in the patient, is interrupted or ablated by the administration of LHRH agonists, LHRH antagonists, anti-LHRH receptor antibodies, anti-LHRH vaccines, anti-androgens, anti-estrogens, selective estrogen receptor modulators (SERMs), selective androgen receptor modulators (SARMs), selective progesterone response modulators (SPRMs), ERDs, aromatase inhibitors, or various combinations thereof.